

CHAPTER 12

REPORT IDENTIFYING STATE HIGHWAY CAPITAL OUTLAY AND MAINTENANCE EXPENDITURES

This chapter presents the procedures for preparing form FHWA-534, State Highway Capital Outlay and Maintenance Expenditures. Form FHWA-534 is designed to expand on the highway capital outlay and maintenance expenditures by State governments, as reported on form FHWA-532. It classifies these expenditures by area type, functional system, on or off the National Highway System (NHS), and type of improvement. Information is reported for all roads on the NHS, and all other arterials and collectors. Reporting is optional for roads and streets functionally classified as local that are off the NHS. Roads and streets functionally classified as local are not to be confused with roads and streets that are under the jurisdictional control of local governments.

Form FHWA-534 is used to measure State investment priorities for the National Highway System, and for the arterial and collector functional systems. The FHWA uses this information in conjunction with the Highway Performance Monitoring System (HPMS) to develop relationships between system condition and performance, and expenditures on these functional systems. The information from form FHWA-534 permits the FHWA to determine trends in investment types by functional system, both on and off the NHS. By analyzing information on relationships between highway performance and condition and State investment patterns, judgments are made on future highway needs and the appropriate Federal role.

IMPORTANT GENERAL CONSIDERATIONS

Relationship between FHWA-534 and FHWA-532.—Amounts on form FHWA-534 correspond to highway capital outlay and maintenance expenditures reported on form FHWA-532. The sum of State FHWA-534 forms should equal the sum of items A.1., A.2., A.7., and A.9. on form FHWA-532, less any expenditures on the roads and streets functionally classified as local that are not on the NHS.

While there is a direct relationship between form FHWA-534 and expenditures on form FHWA-532, the FHWA-534 form is not considered an accounting report.

Since form FHWA-534 was developed in conjunction with the HPMS, close coordination with those in the State who prepare HPMS data is desirable when

developing the individual FHWA-534 forms. HPMS data will assist in identifying the functional system and jurisdiction of the mileage for the capital outlay and maintenance expenditures reported on form FHWA-534.

Toll facility data.—Toll facility data should be identified and reported separately from other State government highway capital outlay and maintenance expenditure data being reported on form FHWA-534.

A State has several options in reporting toll facility expenditure data by functional system: (1) States that provide an annual financial report for their toll facilities do not need to prepare form FHWA-534 if the annual report contains sufficient detail to identify capital outlay and maintenance expenditures by the criteria contained in this chapter; (2) States that provide their toll facility data on form FHWA-539 (refer to Chapter 10-5) may use the simplified reporting in the page 2 detail section on that form or they may prepare form FHWA-534 as necessary for each facility; and (3) States that elect to report toll facility data on forms FHWA-531 and FHWA-532 need to prepare form FHWA-534 for each facility or they can use the simplified reporting in the page 2 detail section on form FHWA-539.

Instructions on local toll facility reporting are included at the end of Chapter 10.

INSTRUCTIONS FOR FORM FHWA-534

One FHWA-534 form is needed for reporting each functional system. As included on form FHWA-532, special nontoll highway authorities should be included within the appropriate functional system on form FHWA-534.

In the upper right corner of the FHWA-534 form, there are three separate areas of information for the State to identify. These areas are:

State.—Record the full State name.

Year ending.—Record the last month of the reporting year and the reporting year (mm/yy) selected for each form FHWA-534. The reporting year (fiscal or calendar) must be the same as the reporting year for capital outlay

and maintenance information reported on form FHWA-532 (see Chapter 1).

Area type and functional system.—Record the functional system for the highways and roads for which expenditures are being reported. The area and functional system is to be reported by name or code. Functional systems are defined in the 1989 FHWA reference manual, *Highway Functional Classification: Concepts, Criteria, and Procedures*.

Area type designations and codes are:

<u>Code</u>	<u>Description</u>
1	Rural
2	Small Urban (population of 5,000 to 49,999)
3	Urbanized Area (population less than 200,000)
4	Urbanized Area (population equal to or greater than 200,000)

Functional system descriptions and codes are:

<u>Code</u>	<u>Description</u>
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Rural Functional Systems

Principal arterial system:	
01	Interstate
02	Other principal arterials
06	Minor arterial system
Collector system:	
07	Major collectors
08	Minor collectors
09	Local system

Small Urban and Urbanized Functional Systems

Principal arterial system:	
11	Interstate
12	Other freeways and expressways
14	Other principal arterials
16	Minor arterial system
17	Collector system
19	Local system

Thus, a capital expenditure on a project in a rural area on a minor arterial should be reported as "rural minor arterial" and coded as 106. An expenditure on a project in an urbanized area of less than 200,000 in population

on an Interstate highway should be reported as "urbanized < 200,000, Interstate" and coded as 311.

Functional codes 09 and 19 are provided for the local system (codes 109, 219, 319 and 419). Unless local system expenditures are on the NHS, these data are optional.

Data columns.—The three columns labeled "On National Highway System", "Off National Highway System", and "Total" are provided to report capital outlay and maintenance data.

On National Highway System.—Record in this column all expenditures for projects on the NHS. For the four FHWA-534 forms reporting data on the Interstate system (codes 101, 211, 311, and 411), all expenditures should be reported in this column, because the entire Interstate system is on the NHS.

Off National Highway System.—Record in this column all expenditures for projects not on the NHS.

Total.—Record in this column the total for expenditures both on and off the NHS. When all FHWA-534 forms are summarized, the only difference between amounts reported for capital outlay and maintenance expenditures by the State on form FHWA-534 and similar entries on form FHWA-532 should be State expenditures on non-NHS roads functionally classified as local. Include expenditures on NHS roads that are functionally classified as local on form FHWA-534.

Expenditures for capital outlay by improvement types.—Enter information on capital outlay for the indicated functional system according to the definitions provided for each item. The information reported should be consistent with information reported in items A.1., A.7.a., and A.9.a. on form FHWA-532 (see Chapter 8).

Item I. Capital Outlay.—Record for each functional system the expenditures by improvement type for the categories of: 1) new facilities, 2) capacity additions to existing facilities, 3) system preservation, and 4) system enhancement and operation.

Item I.A. New Facilities.—Record expenditures for new highways, roads, streets, and bridges. This item excludes expenditures on existing highways, roads, streets, and bridges. Record expenditures by improvement type for: 1) right-of-way; 2) engineering costs; 3) construction of new highways, roads, and streets; 4) construction of new bridges.

Item I.A.1. Right-of-way costs.—Enter expenditures for: right-of-way administration; purchase of land, improvements and easements; and the costs of moving and relocating buildings, businesses, and persons.

Item I.A.2. Engineering Costs.—Enter expenditures for: construction engineering; field engineering and inspections; surveys, material testing, and borings; preparation of plans, specifications and estimates (PS & E); and traffic and related studies.

Item I.A.3. Construction of New Roads.—Enter expenditures for construction of a new facility that will not replace or relocate an existing facility. A new facility will provide: (1) a facility where none existed, or (2) an additional and alternate facility to an existing facility that will remain open and continue to serve through traffic.

Item I.A.4. Construction of New Bridges.—Enter expenditures for construction of a new bridge that will not replace or relocate an existing bridge. A new bridge will provide: (1) a bridge where none existed, or (2) an additional and alternate bridge to an existing bridge or ferry that will remain open and continue to serve through traffic.

Item I.A.5. Total.—Enter the sum of items I.A.1 to I.A.4.

I.B. Capacity Additions to Existing Facilities.—Record all expenditures on highways, roads, streets, and bridges that includes the addition of lanes to an existing facility. Record expenditures by improvement types for: 1) right-of-way; 2) engineering costs; 3) relocation with added capacity; 4) reconstruction with added capacity; 5) major widening; 6) bridge replacement with added capacity; and 7) bridge rehabilitation with added capacity.

I.B.1. Right-Of-Way Costs.—Enter expenditures for: right-of-way administration; purchase of land, improvements and easements; and the costs of moving and relocating buildings, businesses, and persons.

I.B.2. Engineering Costs.—Enter expenditures for: construction engineering; field engineering and inspections; surveys, material testing, and borings; preparation of plans, specifications and estimates (PS & E); and traffic and related studies.

I.B.3. Relocation with Added Capacity.—Enter expenditures for construction of a highway, road, or street with additional lanes on a new location that replaces an existing route. The new facility carries all the through traffic with the previous facility closed or retained as a land-service road only.

I.B.4. Reconstruction with Added Capacity.—Enter expenditures for construction on the approximate alignment of an existing route where the old pavement structure is substantially removed and replaced. Reconstruction results in additional capacity through widening to provide additional through lanes, dualizing, adding or revising interchanges, replacing other highway elements such as a grade separation to replace an existing grade intersection, or otherwise improving the existing facility without changing the basic character of the facility.

I.B.5. Major Widening.—Enter expenditures for the addition of lanes or dualization of an existing facility where the existing pavement is salvaged. Also included, where necessary, is the resurfacing of existing pavement and other incidental improvements such as drainage and shoulder improvements.

I.B.6. Bridge Replacement with Added Capacity.—Enter expenditures for the total replacement of a structurally deficient or functionally obsolete bridge with a new bridge in the same traffic corridor. The replacement bridge is designed for an increased traffic flow. Construction of a dual structure to alleviate a capacity deficiency is also included. The replacement bridge carries all of the through traffic with the old bridge retained for local service only, removed, closed, or converted to a purpose other than carrying through traffic.

I.B.7. Bridge Rehabilitation with added Capacity.—Enter expenditures for major work required to restore the structural integrity of a bridge as well as work necessary to correct major safety defects. Bridge deck replacement (both partial and complete) and the widening of bridges to specified standards by widening lanes or adding lanes are included. Construction of a dual structure to alleviate a capacity deficiency is also included when the old structure is included in the dual structure.

I.B.8. Total.—Enter the sum of items I.B.1 to I.B.7.

I.C. System Preservation.—Record expenditures for activities which preserve and enhance the performance of highways, roads, and bridges. These can include infrastructure repair, reconstruction, and rehabilitation to maintain and maximize performance of the existing system. These activities are typically carried out on a continuous and timely basis as part of a State highway agency's maintenance program. Record expenditures by improvement types for: 1) right-of-way; 2) engineering costs; 3) relocation with no added capacity; 4) reconstruction with no added capacity; 5) restoration,

rehabilitation, and resurfacing; 6) minor widening, 7) bridge replacement with no added capacity; and 8) bridge rehabilitation with no added capacity.

I.C.1. Right-of-Way Costs.—Enter the following expenditures: right-of-way administration; purchase of land, improvements and easements; and the costs of moving and relocating buildings, businesses, and persons.

I.C.2. Engineering Costs.—Enter the following expenditures: construction engineering; field engineering and inspections; surveys, material testing, and borings; preparation of plans, specifications and estimates (PS & E); and traffic and related studies.

I.C.3. Relocation with No Added Capacity.—Enter expenditures for construction of a facility on a new location that replaces an existing route. The new facility does not have an increased capacity over the previous facility. The new facility carries all the through traffic with the previous facility closed or retained as a land-service road only.

I.C.4. Reconstruction with No Added Capacity.—Enter expenditures for construction on the approximate alignment of an existing route where the old pavement structure is substantially removed and replaced. Reconstruction does not result in additional capacity. It may involve widening the existing lanes or shoulders, but would not add to the number of through lanes. Improvements on the existing facility would not change its basic character.

I.C.5. Restoration, Rehabilitation, and Resurfacing.—Enter expenditures for work required to return an existing pavement (including shoulders) to a condition of adequate structural support or to a condition adequate for placement of an additional stage of construction. There may be some upgrading of unsafe features or other incidental work in conjunction with restoration, rehabilitation, and resurfacing. Typical improvements would include replacing spalled or malfunctioning joints; substantial pavement stabilization prior to resurfacing; grinding or grooving of rigid pavements; replacing deteriorated materials; reworking or strengthening bases or subbases; and adding underdrains. Where surfacing is constructed by a separate project as a final stage of construction, the type of improvement should be the same as that of the preceding stage; i.e., new construction, relocation, reconstruction, minor widening, etc.

I.C.6. Minor Widening.—Enter expenditures for widening the lanes or shoulders of an existing facility without adding more through lanes. In many cases, the improvement includes only the resurfacing of the existing pavement and other incidental improvements such as shoulder and drainage improvements. The existing pavement is salvaged.

I.C.7. Bridge Replacement With No Added Capacity.—Enter expenditures for the total replacement of a structurally deficient or functionally obsolete bridge with a new bridge in the same traffic corridor. The new bridge does not have an increased capacity over the previous facility. The new bridge carries all of the through traffic with the old bridge removed, closed or converted to a purpose other than carrying through traffic.

I.C.8. Bridge Rehabilitation With No Added Capacity.—The major work required to restore the structural integrity of a bridge as well as work necessary to correct major safety defects. Bridge deck replacement (both partial and complete) and the widening of bridges to specified standards are included. Construction of a dual structure to alleviate a capacity deficiency is not included.

I.C.9. Total.—Enter the sum of items I.C.1 to I.C.8.

I.D. System Enhancement and Operation.—Record expenditures that improve the quality of the natural environment by reducing highway-related pollution and by protecting and enhancing ecosystems, and for improvements that are not directly related to the physical structure or condition of roads and bridges.

I.D.1. Engineering Costs.—Enter the following expenditures: construction engineering; field engineering and inspections; surveys, material testing, and borings; preparation of plans, specifications and estimates (PS & E); and traffic and related studies.

I.D.2. Safety Improvements.—Enter expenditures for a project or a significant portion of a project that provides features or devices to enhance safety.

I.D.3. Traffic management/traffic engineering.—Enter expenditures for traffic operation improvements which are designed to reduce traffic congestion and to facilitate the flow of traffic, both people and vehicles, on existing systems, or to conserve motor fuels; or which are designed to reduce vehicle use or to improve transit service. Expenditures for the following types of systems would be included in this item: intelligent transportation

infrastructure (ITI), traffic signal controls, freeway management, incident management, road and bridge surveillance and control, electronic message boards, video monitoring, motorist information radio, freeway ramp control, etc.

I.D.4. Environmental Improvements.—Enter expenditures for environmentally related features. This category includes improvements that do not provide any increase in the level of service, in the condition of the facility, or in safety features. Typical improvements which fall in this category would be noise barriers, beautification, and other environmentally related features not built as a part of the above identified improvement types.

I.D.5. Other Enhancements.—Enter expenditures for improvements that are not categorized above, i.e., construction of bicycle and pedestrian facilities such as bike paths, bicycle rest areas, pedestrian overpasses, etc.

I.D.6. Total.—Enter the sum of items I.D.1 to I.D.5.

I.E. Total Capital Outlay.—Enter the sum of items I.A.5, I.B.8, I.C.9, and I.D.6.

Maintenance expenditures.—Record information on maintenance expenditures for the reported functional system according to the maintenance definition provided in Chapter 8. The information reported should be consistent with information reported in items A.2., A.7.b., and A.9.b. on form FHWA-532.

Item II. Maintenance costs.—Record all expenditures for maintenance for this functional system. Maintenance information should be reported in all three columns on form FHWA-534.

The public report burden for this information collection is estimated to average 8 hours.

U. S. Department of Transportation
Federal Highway Administration

STATE:

YEAR ENDING (mm/yy):

AREA AND FUNCTIONAL SYSTEM:

**STATE HIGHWAY CAPITAL OUTLAY
AND MAINTENANCE EXPENDITURES**
(Classified by Functional System)

EXPENDITURES BY IMPROVEMENT TYPES	ON NATIONAL HIGHWAY SYSTEM	OFF NATIONAL HIGHWAY SYSTEM	TOTAL
I. CAPITAL OUTLAY			
A. NEW FACILITIES			
1. RIGHT-OF-WAY COSTS			
2. ENGINEERING COSTS			
3. CONSTRUCTION OF NEW ROADS			
4. CONSTRUCTION OF NEW BRIDGES			
5. TOTAL			
B. CAPACITY ADDITIONS TO EXISTING FACILITIES			
1. RIGHT-OF-WAY COSTS			
2. ENGINEERING COSTS			
3. RELOCATION WITH ADDED CAPACITY			
4. RECONSTRUCTION WITH ADDED CAPACITY			
5. MAJOR WIDENING			
6. BRIDGE REPLACEMENT WITH ADDED CAPACITY			
7. BRIDGE REHABILITATION WITH ADDED CAPACITY			
8. TOTAL			
C. SYSTEM PRESERVATION			
1. RIGHT-OF-WAY COSTS			
2. ENGINEERING COSTS			
3. RELOCATION WITH NO ADDED CAPACITY			
4. RECONSTRUCTION WITH NO ADDED CAPACITY			
5. RESTORATION, REHABILITATION, & RESURFACING			
6. MINOR WIDENING			
7. BRIDGE REPLACEMENT WITH NO ADDED CAPACITY			
8. BRIDGE REHABILITATION WITH NO ADDED CAPACITY			
9. TOTAL			
D. SYSTEM ENHANCEMENT AND OPERATION			
1. ENGINEERING COSTS			
2. SAFETY IMPROVEMENTS			
3. TRAFFIC MANAGEMENT / TRAFFIC ENGINEERING			
4. ENVIRONMENTAL IMPROVEMENTS			
5. OTHER ENHANCEMENTS			
6. TOTAL			
E. TOTAL CAPITAL OUTLAY (Lines A + B + C + D)			
II. MAINTENANCE			

The public report burden for this information collection is estimated to average 380 hours annually.

LOCAL HIGHWAY FINANCE REPORT	STATE:
	YEAR ENDING (mm/yy): /

This Information From The Records Of:	Prepared By:
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I. DISPOSITION OF HIGHWAY-USER REVENUES AVAILABLE FOR LOCAL GOVERNMENT EXPENDITURE

ITEM	A. Local Motor-Fuel Taxes	B. Local Motor-Vehicle Taxes	C. Receipts from State Highway-User Taxes	D. Receipts from Federal Highway Administration
1. Total receipts available				
2. Minus amount used for collection expenses				
3. Minus amount used for nonhighway purposes				
4. Minus amount used for mass transit				
5. Remainder used for highway purposes	0	0	0	0

II. RECEIPTS FOR ROAD AND STREET PURPOSES

III. EXPENDITURES FOR ROAD AND STREET PURPOSES

ITEM	AMOUNT	ITEM	AMOUNT
A. Receipts from local sources:		A. Local highway expenditures:	
1. Local highway-user taxes		1. Capital outlay (from page 2)	0
a. Motor Fuel (from Item I.A.5.)	0	2. Maintenance:	
b. Motor Vehicle (from Item I.B.5.)	0	3. Road and street services:	
c. Total (a.+b.)	0	a. Traffic control operations	
2. General fund appropriations		b. Snow and ice removal	
3. Other local imposts (from page 2)	0	c. Other	
4. Miscellaneous local receipts (from page 2)	0	d. Total (a. through c.)	0
5. Transfers from toll facilities		4. General administration & miscellaneous	
6. Proceeds of sale of bonds and notes:		5. Highway law enforcement and safety	
a. Bonds - Original Issues		6. Total (1 through 5)	0
b. Bonds - Refunding Issues		B. Debt service on local obligations:	
c. Notes		1. Bonds:	
d. Total (a. + b. + c.)	0	a. Interest	
7. Total (1 through 6)	0	b. Redemption	
B. Private Contributions		c. Total (a. + b.)	0
C. Receipts from State government		2. Notes:	
(from page 2)	0	a. Interest	
D. Receipts from Federal Government		b. Redemption	
(from page 2)	0	c. Total (a. + b.)	0
E. Total receipts (A.7 + B + C + D)	0	3. Total (1.c + 2.c)	0
		C. Payments to State for highways	
		D. Payments to toll facilities	
		E. Total expenditures (A.6 + B.3 + C + D)	0

IV. LOCAL HIGHWAY DEBT STATUS

(Show all entries at par)

	Opening Debt	Amount Issued	Redemptions	Closing Debt
A. Bonds (Total)				0
1. Bonds (Refunding Portion)				
B. Notes (Total)				0

Notes and Comments:

U.S. Department of Transportation, Federal Highway Administration	TOLL FACILITY INCOME AND EXPENDITURES					State: _____	
						Year Ending (mm/yy): /	
						Name of Facility: _____	
Item	Total All Funds	(A)	(B)	(C)	(D)	(E)	(F)
I. Opening Balance							
II. Income							
A. Tolls							
B. Concessions & Rentals							
C. State Highway-User Revenue							
D. Other State Funds							
E. Funds from Federal Highway Admin.							
F. Other Federal funds							
G. Local government funds							
H. Bond Sales (net)							
I. Investment Income (All)							
J. Miscellaneous Income							
K. Total Income							
III. Expenditures							
A. Right of Way							
B. Engineering							
C. Construction							
D. Maintenance							
E. Operations							
F. Administration							
G. Law enforce & safety							
H. Bond administration							
I. Bond interest							
J. Bond redemption (net)							
K. Transfer to State Highway Fund							
L. Transfer to local governments							
M. Transfer to mass transit							
N. Transfer to other (specify)							
O. Total Expenditures							
IV. Closing Balance							
V. Debt Status	Outstanding, Beginning of Year	Amount Issued During Year (Par)		Redemption During Year (Par)		Outstanding, End of Year	
A. Total Debt							
1. Refunding Issues							

TOLL FACILITY EXPENDITURES

State:

Year Ending (mm/yy):

/

Detail on Expenditures (State Facilities only)	Total	Identify by Facility, Functional System or NHS					
		(A)	(B)	(C)	(D)	(E)	(F)
VI. Capital Outlay							
A. New Facilities							
1. Right-of-way Costs							
2. Engineering Costs							
3. Construction of New Roads							
4. Construction of New Bridges							
5. Total (1 through 4)							
B. Capacity Additions to Existing Facilities							
1. Right-of-way Costs							
2. Engineering Costs							
3. Relocation with Added Capacity							
4. Reconstruction with Added Capacity							
5. Major Widening							
6. Bridge Replacement with Added Capacity							
7. Bridge Rehabilitation with Added Capacity							
8. Total (1 through 7)							
C. System Preservation							
1. Right-of-way Costs							
2. Engineering Costs							
3. Relocation with No Added Capacity							
4. Reconstruction with No Added Capacity							
5. Restoration, Rehabilitation and Resurfacing							
6. Minor Widening							
7. Bridge Replacement with No Added Capacity							
8. Bridge Rehabilitation with No Added Capacity							
9. Total (1 through 8)							
D. System Enhancement and Operation							
1. Engineering Costs							
2. Safety Improvements							
3. Traffic Management and Traffic Engineering							
4. Environmental Improvements							
5. Other Enhancements							
6. Total (1 through 5)							
E. Grand Total (A.5.+B.8.+C.9.+D.6.)							
VII. Maintenance							
Notes and Comments:							